

REPLACEMENT
AS A RESULT OF
REVERSE
TRANSCRIPTION
OF VECTOR RNA

IRRELEVANT SEQUENCE
REPLACEMENT
MUTATION OF
ENHANCER AND
PROMOTER

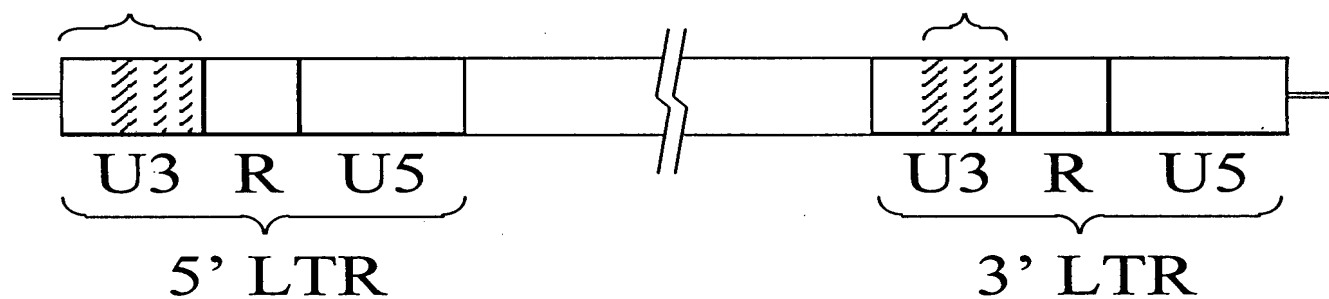


Figure 1

Wild type 3' LTR sequence:

1 GAACAGATGG AACAGCTGAA TATGGGCCAA ACAGGATATC TGTGG TAAGC
 51 AGTTCC TGCC CCGGCTCAGG GCCAAGAACA GATGGAACAG CTGAATATGG
 101 GCCAAACAGG ATATCTGTGG TAAGCAGTTC CTGCCCCGGC TCAGGGCCAA
 151 GAACAGATGG TCCCCAGATG CGGTCCAGCC CTCAGCAGTT TCTAGAGAAC
 201 CATCAGATGT TTCCAGGGTG CCCCAAGGAC CTGAAATGAC CCTGTGCCTT
 251 ATTTGAACTA ACCAATCAGT TCGCTTCTCG CTTCTGTTCG CGCGCTTCTG
 301 CTCCCCGAGC TCAATAAAA

 Corresponding modified 3' LTR sequence from pENZ1
 (modified sequences in bold italics):

1 *ACGCTTGATC CGGCTACCTG CCCATTGAC CACCAAGCGA AACATCGCAT*
 51 *CGAGCGAGCA CGTACTCGGA TGGAAGCCGG TCTTGTCGAT CAGGATGATC*
 101 *TGGACGAAGA GCATCAGGGG CTCGCGCCAG CCGAACTGTT CGCCAGGCTC*
 151 *AAGGCGCGCA TGCCCGACGG CGAGGATCTC GTCGTGACTT* TCTAGAGAAC
 201 CATCAGATGT TTCCAGGGTG CCCCAAGGAC CTGAAATGAC CCTGTGCCTT
 251 ATTTGAACTA *ACCGGTCAGT* TCGCTTCTCG CTTCTGTTCG CGCGCTTCTG
 301 CTCCCCGAGC *TCAGCTGCG*

Figure 2

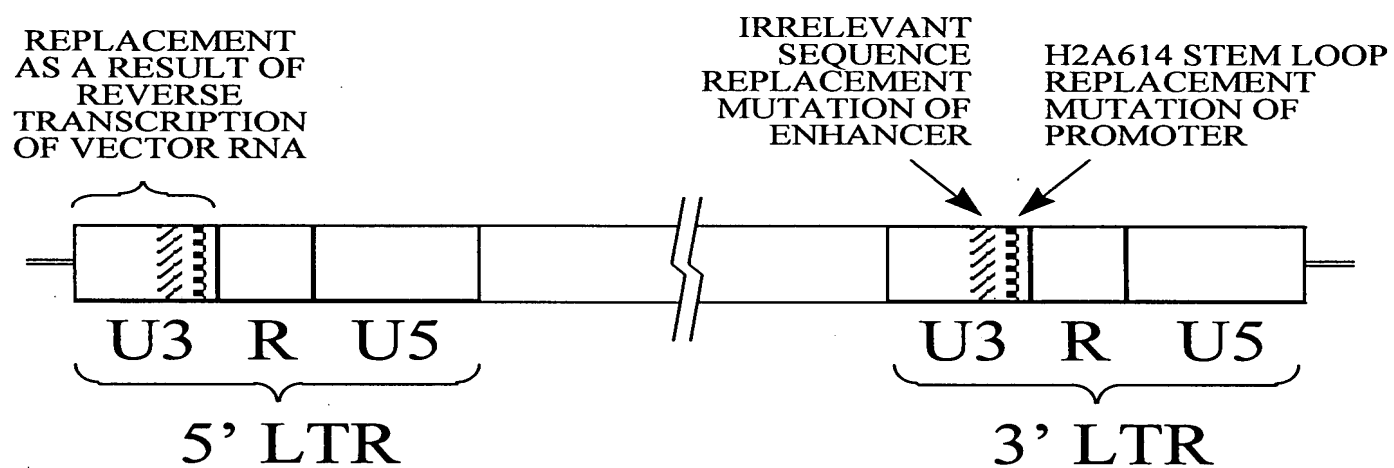


Figure 3

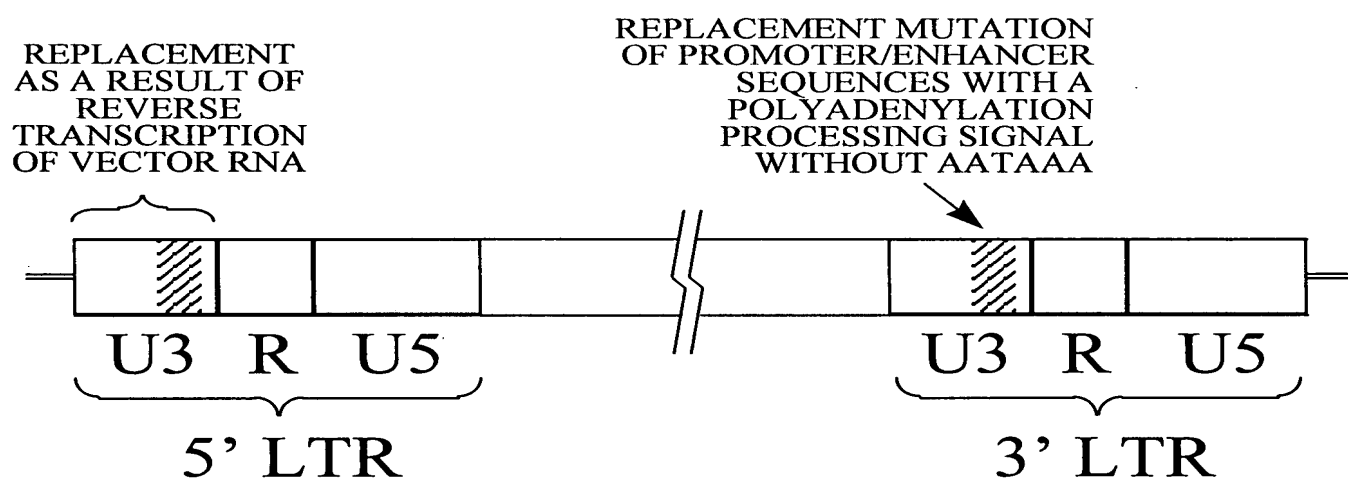


Figure 4

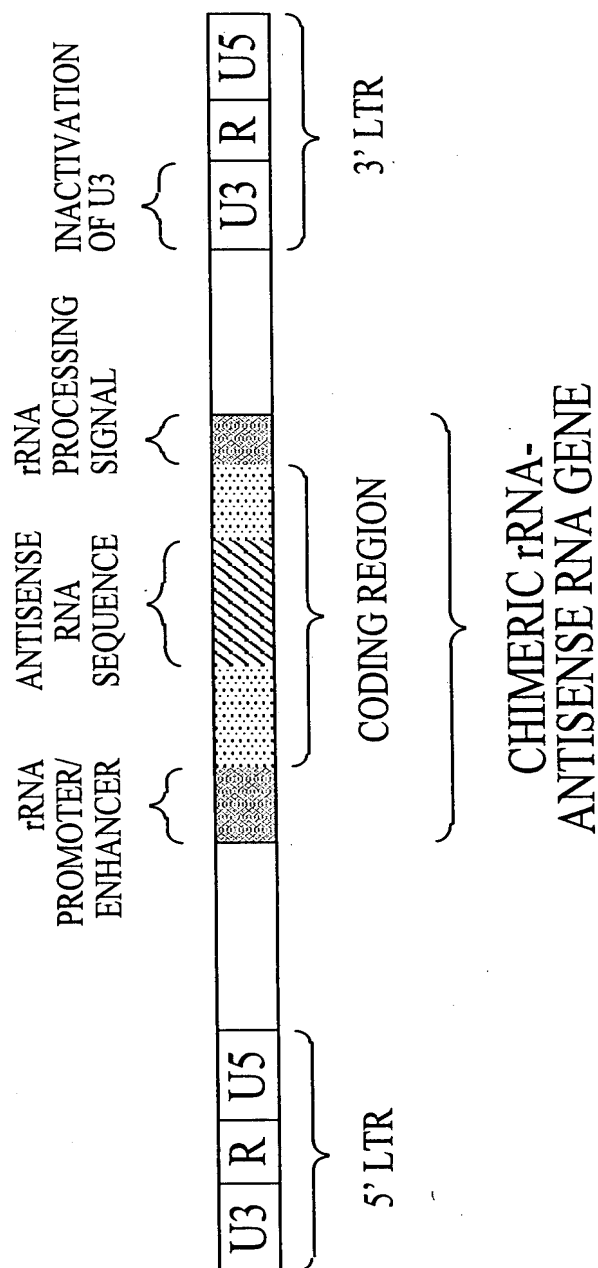


Figure 5



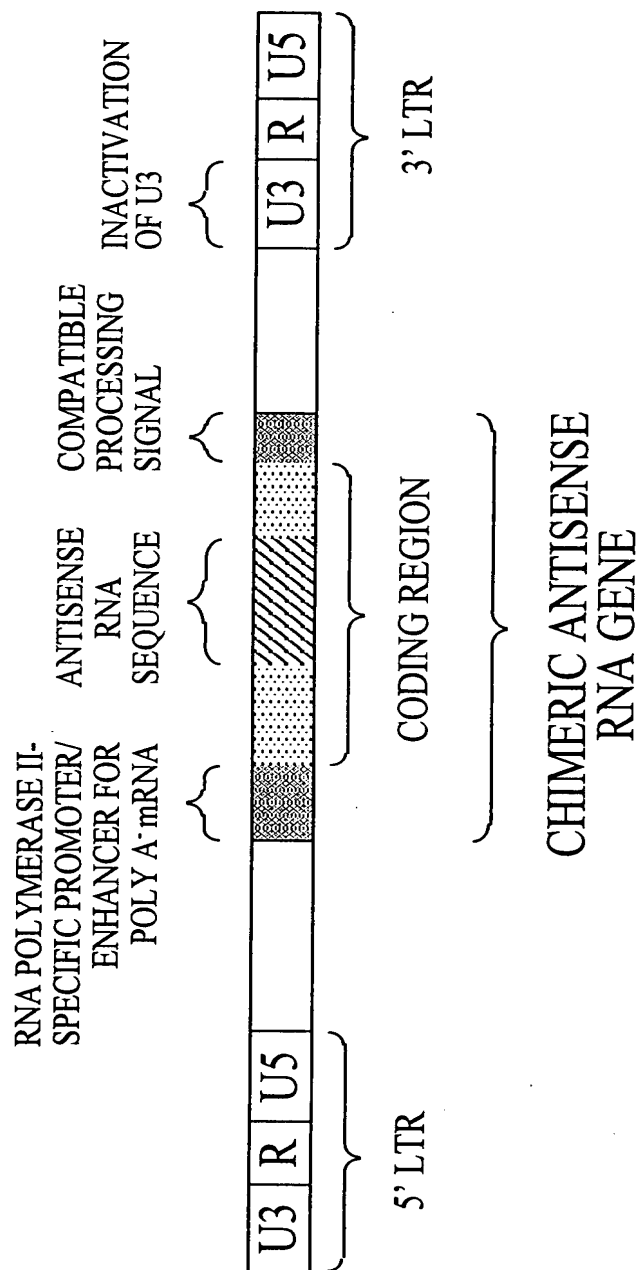


Figure 7

Vector DNA
Construct Transfected
into Packaging Cell

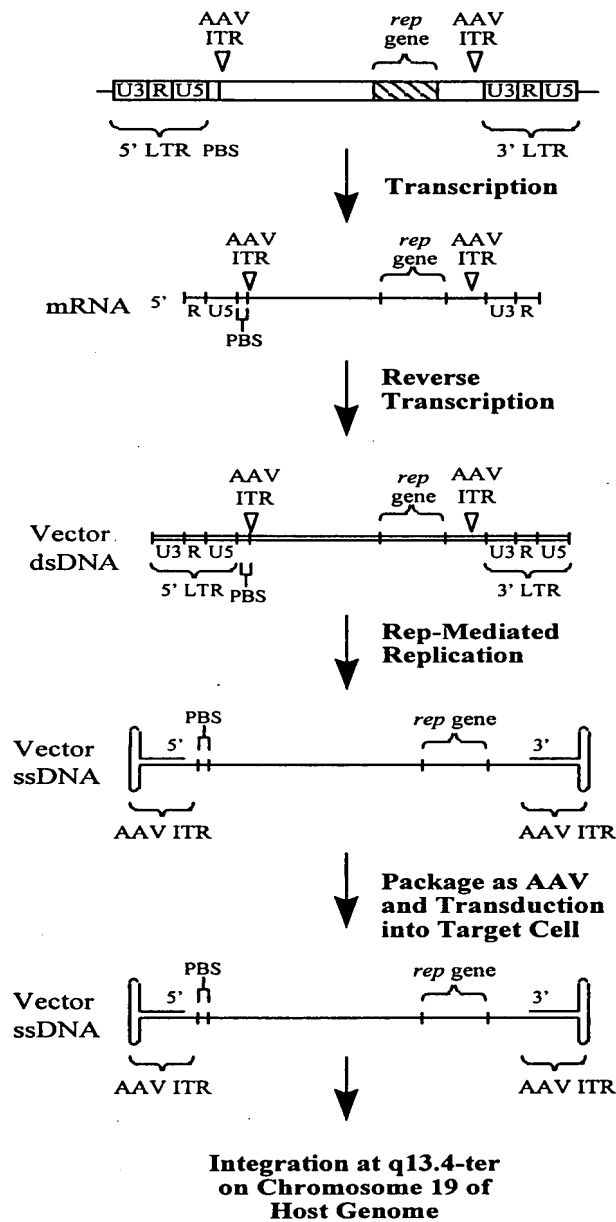


Figure 8

Vector DNA
Construct Transfected
into Packaging Cell

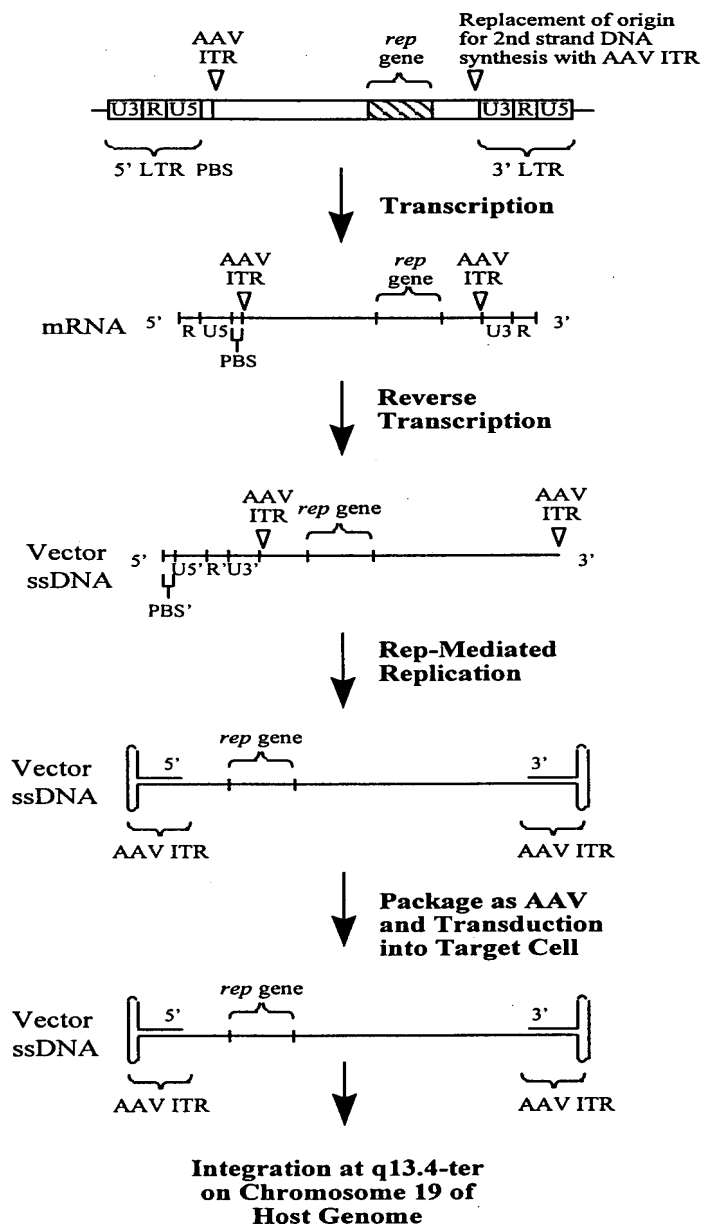


Figure 9

Vector DNA Construct
Transfected into
Packaging Cell

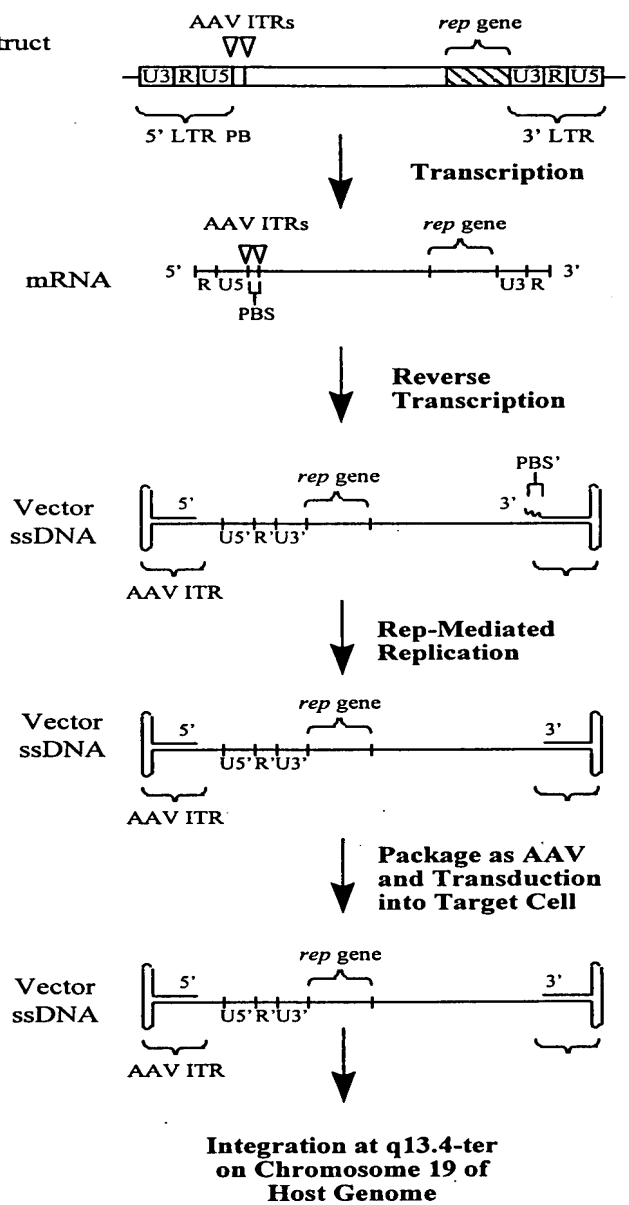


Figure 10

Vector DNA
Construct Transfected
into Packaging Cell

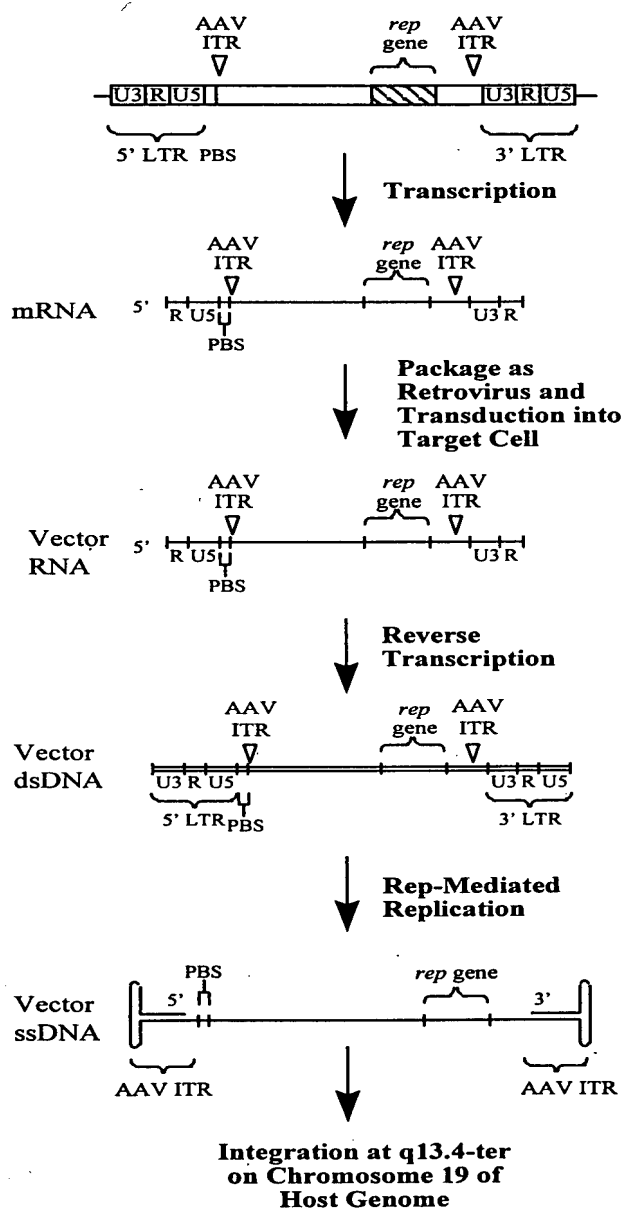


Figure 11

Vector DNA
Construct Transfected
into Packaging Cell

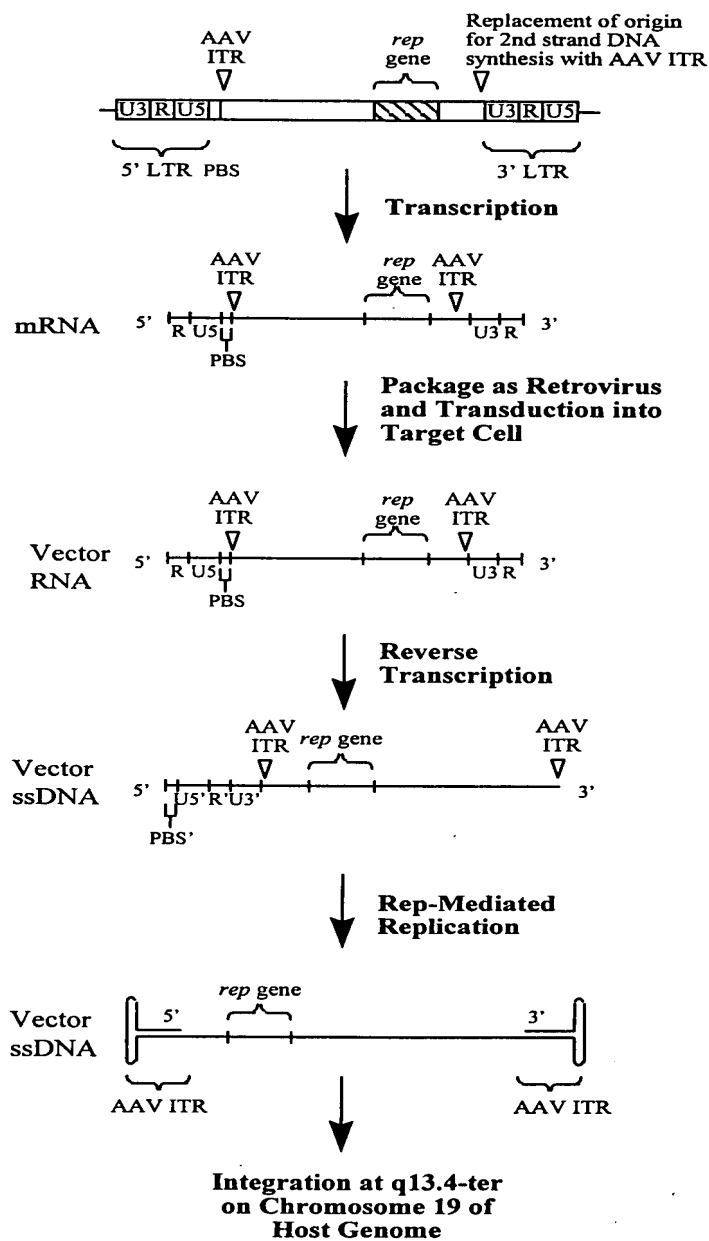
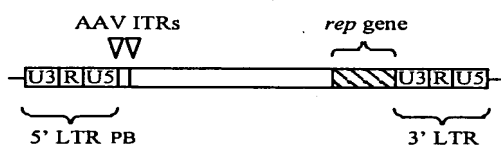
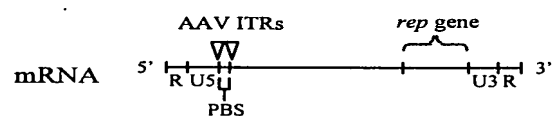


Figure 12

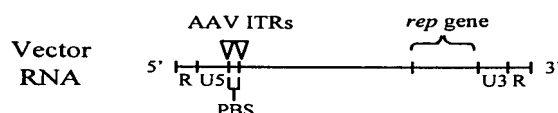
Vector DNA Construct
Transfected into
Packaging Cell



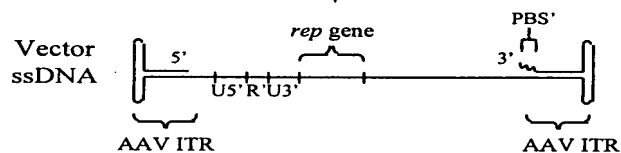
Transcription



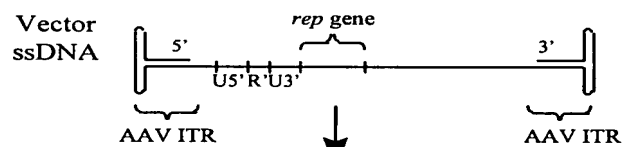
**Package as Retrovirus
and Transduction into
Target Cell**



**Reverse
Transcription**



**Rep-Mediated
Replication**



**Integration at q13.4-ter
on Chromosome 19 of
Host Genome**

Figure 13